FUJITSU

# DATASHEET

## ESPRIMO E5635 E85+

Issue: December 2009

Your desktop without compromises

**ESPRIMO E5635 E85+**

The ESPRIMO E5635 E85+ works reliably and is quiet; it is equipped with state-of-the art AMD processor technology and built using environmentally conscious material. It can be positioned vertically or horizontally - ideal if there is hardly any space. The easy-to-service design enables access to all the components; the PC can be extended without long downtimes. Additionally equipped with a power supply with up to 87% efficiency, the PC reduces your power consumption, keeping costs to a minimum.

**Small form factor PC**

Flexible desktop solution whatever the space required.

- Less than 13 litres volume, can be positioned vertically and horizontally

**Energy saving**

Low power consumption and low costs, without any loss in performance.

- State-of-the-art technology, low energy-consuming processors, up to 87% efficient power supply and enhanced power management settings

**Environmentally compatible product**

Your contribution to environmental protection for the continued existence of our planet

- Halogen-free mainboard, sophisticated product concept for the entire lifecycle

**Silent operation**

Pleasant working environment due to an extremely quiet system

- Innovative hardware design, optimized cooling concept

**Serviceablitiy**

Easy to extend and optimal user-friendliness without any additional tools

- Easy access to all replaceable and expandable components

AMD Phenom 64 · NORDIC ECOLABEL · Green IT · HALOGEN FREE · QUIET RUNNING · EASY ACCESS CABINET · TWINLOAD · FAMILY CONCEPT · MANAGEABILITY · KEYBOARD POWER ON

## Components

| | |
|---|---|
| **Processor** | AMD Phenom™ II X4 945 (3.0 GHz, 8 MB) |
| | AMD Phenom™ II X4 925 (2.8 GHz, 8 MB) |
| | AMD Phenom™ II X3 710 (2.6 GHz, 7.5 MB) |
| | AMD Phenom™ II X2 545 (3.0 GHz, 7 MB) |
| | AMD Athlon™ X2 5600B (2.9 GHz, 2 x 512 KB) |
| | AMD Athlon™ X2 5000B (2.6 GHz, 2 x 512 KB) |
| | AMD Athlon™ II X2 240e (2.8 GHz, 2 MB) |
| | AMD Athlon™ II X2 240 (2.8 GHz, 2 MB) |
| | AMD Sempron™ LE-1300 (2.3 GHz, 512 KB) |
| | AMD Sempron™ 140 (2.7 GHz, 1 MB) |
| **Memory modules** | 4 GB (1 module(s) 4 GB) DDR2, 800 MHz, PC2-6400, DIMM |
| | 2 GB (1 module(s) 2 GB) DDR2, 800 MHz, PC2-6400, DIMM |
| | 1 GB (1 module(s) 1 GB) DDR2, 800 MHz, PC2-6400, DIMM |
| **Hard disk drives (internal)** | SSD SATA, 128 GB, 2.5-inch |
| | SATA II, 7200 rpm, 1000 GB, 3.5-inch, S.M.A.R.T. |
| | SATA II, 7200 rpm, 500 GB, 3.5-inch, S.M.A.R.T. business critical |
| | SATA II, 7200 rpm, 500 GB, 3.5-inch, S.M.A.R.T. |
| | SATA II, 7200 rpm, 320 GB, 3.5-inch, S.M.A.R.T. |
| | SATA II, 7200 rpm, 250 GB, 3.5-inch, S.M.A.R.T. |
| | SATA II, 7200 rpm, 160 GB, 3.5-inch, S.M.A.R.T. |
| | SATA II, 7200 rpm, 160 GB, 2.5-inch, S.M.A.R.T. |
| Hard disk notes | Supporting NCQ and 3 GBit |
| **Graphics add on cards (optional)** | DVI Adapter |
| | NVIDIA® Geforce® 9300GE display port low profile, 512 MB |
| | NVIDIA® Geforce® 9300GE low profile, 256 MB |
| | NVIDIA® Geforce® 9300GE low profile, 512 MB |
| | NVIDIA® Geforce® 9500GS low profile, 512 MB |
| | NVIDIA® Quadro NVS 290 low profile, 256 MB |
| **Modular bay options** | 1.44 MB Floppy |
| | Blu-ray Disc Triple Writer |
| | DVD-ROM |
| | DVD Super Multi |
| | MultiCard Reader 20in1, 3,5-Inch |
| **Interface add on cards/components (optional)** | |
| | WLAN III, 802.11g/Draft-n (Windows only) |
| | WLAN II, 802.11g, 54Mbps (Windows only) |
| | Parallel Interface |
| | Modem adapter kit (EU) |
| | Modem 56k incl. RJ11 modem cable |
| | Gigabit Ethernet PCIe x1 |
| | FireWire PCI-Card IEEE1394 |
| | eSATA Interface |
| | Dual serial card PCI LP |
| **Base unit** | **ESPRIMO E5635 E85+** |
| **Mainboard** | |
| Mainboard type | D2904 |
| Formfactor | proprietary |
| Chipset | NVIDIA® MCP78PV |
| Processor socket | AM2+ |
| Processor quantity maximum | 1 |
| System bus (FSB / HT / QPI) | up to 4000 MHz |
| Memory slots | 4 DIMM (DDR2) |

| Mainboard | |
|---|---|
| Supported capacity RAM (max.) | 16 GB |
| Memory frequency | 800 MHz |
| Memory notes | Dual channel support.<br>For dual channel performance, a minimum of 2 memory modules have to be ordered.<br>Capacity per channel has to be the same. |
| LAN | 10/100/1000 MBit/s Broadcom BCM5787 |
| BIOS version | Phoenix 6.0 |
| BIOS features | BIOS Flash EPROM update by software<br>Recovery BIOS |
| Audio codec | Realtek ALC262 |
| Audio features | Internal speaker supports audio playback, High Definition audio |
| **I/O controller on board** | |
| Serial ATA total | 4 |
| thereof eSATA | 1 (optional) |
| Controller functions | Serial ATA II<br>3 GBit<br>Raid 1/0 |
| **Interfaces** | |
| Audio: line-in | 1 |
| Audio: line-out | 1 |
| DVI | optional |
| Ethernet (RJ-45) | 1 |
| Front audio: headphone | 1 |
| Front audio: microphone | 1 |
| Mouse / Keyboard (PS/2) | 2 |
| Parallel | optional (25pin with EPP and ECP) |
| Serial (RS-232) | 2 (9pin, 16 byte FIFO, 16550 compatible) |
| USB front | 2 |
| USB internal | 2 |
| USB rear | 6 |
| USB 2.0 total | 10 |
| VGA | 1 |
| **Input device / components** | |
| | Optical USB tilt wheel mouse<br>Optional: Optical USB/PS2 tilt wheel mouse |
| **Drive bays** | |
| Drive bays total | 3 |
| 3.5-inch internal bays | 1 |
| 3.5-inch external bays | 1 |
| 5.25-inch external bays | 1 |
| Drive bay notes | optional external bay as internal 3,5” |
| **Slots** | |
| PCI-Express Gen2 x16 | 1 x (210 mm) low profile |
| PCI-Express x1 | 1 x (210 mm) low profile |
| PCI (32-bit / 33 MHz) | 2 x (190 mm) low profile |
| Slots optional configuration | or 1x PCI Express x16 low profile (190mm) and via Riser 2 x PCI full heigh (174 / 210 mm) |
| **Graphics on board** | |
| Graphics brand name | NVIDIA® GeForce® 9200 |
| Shared video memory | up to 256 MB |
| Refresh rate 1024 x 768 (recommended / max.) | 120 Hz / 200 Hz |
| Refresh rate 1280 x 1024 (recommended / max.) | 100 Hz / 150 Hz |
| Refresh rate 1600 x 1200 (recommended / max.) | 85 Hz / 100 Hz |

| | |
|---|---|
| **Graphics on board** | |
| TFT resolution (VGA) | 1360 x 768 pixel<br>1440 x 900 pixel<br>1680 x 1050 pixel<br>1920 x 1200 pixel |
| TFT resolution (DVI) | 1360 x 768 pixel<br>1440 x 900 pixel<br>1680 x 1050 pixel<br>1920 x 1200 pixel |
| Graphics notes | Tested resolutions, depending on display type additional resolutions and frequencies possible<br>Shared memory depending on main memory size<br>Resolution (color depth up to 32 Bit/pixel)<br>For TFT we recommend using 60Hz |
| **Electrical values** | |
| Power efficiency note | power supply efficiency (at 230V; 20% / 50% / 100% load) : 84% / 87% / 85%) |
| | 0-Watt mode with hard-off switch |
| Rated voltage range | 100 - 240 V |
| Rated frequency range | 50 - 60 Hz |
| Operating voltage range | 90 - 264 V |
| Operating line frequency range | 47 - 63 Hz |
| Max. output of power supply | 250 W |
| Power factor correction/active power | active |
| Monitor outlet | No |
| **Power consumption** | |
| Power consumption note | see white paper Energy Consumption |
| Link to Energy White Paper | http://docs.ts.fujitsu.com/dl.aspx?id=cabd3bfa-83e8-48bc-95fb-98479a96ea82 |
| **Heat dissipation** | |
| Heat dissipation notes | see white paper Energy Consumption |
| **Noise for standard configuration (HDD, ODD, FDD)** | |
| Noise emission | According to ISO9296 |
| Related Processors for noise | AMD® Phenom™ II X4 925 |
| Noise Operation mode 1: ODD load (Blue angel requirement) | 4.5B / 30 dB(A) |
| Noise Operation mode 2: HDD load (Blue angel requirement) | 3.7B / 21 dB(A) |
| Noise Operation mode 3: CPU 90% load (Blue angel requirement) | 3.7B / 21 dB(A) |
| Noise Operation mode 4: High load | 3.7B / 22 dB(A) |
| Noise Operation mode 5: Office applications | 3.7B / 21 dB(A) |
| Idle mode (Blue Angel requirement) | 3.6B / 20 dB(A) |
| Noise notes / description | A weighted sound power level Lwad (in B) / workplace related A-weighted sound pressure level LpAm (in dB(A)), Bystander position |
| **Dimensions / Weight / Environmental** | |
| Dimension (W x D x H) | 340 x 380 x 100 mm |
| Operating position | Vertical / horizontal (no feet needed) |
| Weight | approx. 10 kg |
| Weight notes | Actual weight may vary depending on configuration |
| Operating ambient temperature | 15 - 35°C |
| **Compliance** | |
| Product | ESPRIMO E5635 |
| Model | DT7-D2904 |
| Germany | GS optional |
| Europe | CE<br>Nordic Swan |

| | |
|---|---|
| **Compliance** | |
| USA/Canada | cCSAus |
| Global | RoHS (Restriction of hazardous substances)<br>WEEE (Waste electrical and electronical equipment)<br>Microsoft Operating Systems (HCT / HCL entry / WHQL) |
| Compliance link | https://sp.ts.fujitsu.com/sites/certificates/default.aspx |
| **Operating system** | |
| Operating system optional preinstalled | Microsoft® Windows® 7 Home Premium<br>Microsoft® Windows® 7 Professional<br>Microsoft® Windows Vista® Home Basic<br>Microsoft® Windows Vista® Home Premium<br>Microsoft® Windows Vista® Business 32-bit<br>Microsoft® Windows Vista® Business 64-bit<br>TwinLoad Microsoft® Windows® XP Professional (DVD) |
| Operating system compatible | Linux |
| Operating system notes | All Windows Vista® and Windows® 7 versions are Office 2007 ready. |
| **Additional Software** | |
| Additional software (preinstalled) | Nero Essentials S (burning software) |
| Additional software (optional) | Recovery DVD for Windows®<br>Drivers & Utilities DVD (DUDVD)<br>CyberLink PowerDVD BD (playback software for Blu-ray Disc™, only with Blu-ray Disc™ drive) |
| **Compatibility (references)** | |
| | DMI 2.0<br>PC 2001<br>WMI 1.5<br>USB 2.0 |
| **Manageability** | |
| Manageability features | ASF 2.0 (Alert Standard Format)<br>DeskUpdate Driver management<br>DeskView Migrate (optional)<br>DeskView Control (optional)<br>PXE 2.1 Boot code<br>BootP Boot Code including Bootmanage Administrator Software (tested)<br>Wake up from S5 (off mode)<br>Intrusion switch (optional) |
| Manageability type | DeskView 10.x client management including: |
| DeskView features | On/Offline remote client management<br>Detailed system inventory management and reports<br>BIOS Management<br>Remote power management<br>System notifications<br>Advanced alerts (ASF implementation)<br>Security Remote Control<br>DeskView Helpdesk Integration<br>WoL (Wake on LAN) |
| Manageability link | http://ts.fujitsu.com/manageability<br>http://www.altiris.com/fujitsu |
| **Security** | |
| Physical security | Kensington Lock support<br>Eye for padlock<br>Optional: Integrated cabinet lock |
| System security | Boot sector virus protection<br>Write protect option for the Flash EPROM<br>Embedded security (TPM 1.2) - Infineon<br>Control of all USB interfaces<br>External USB ports can be disabled separately<br>Boot protection for floppy disk / CD drive and write protection for floppy disk drive<br>Control of external interfaces |

## Security

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|---|---|
| User security | User and supervisor BIOS password<br>SystemLock 2 BIOS SmartCard Security<br>Hard disk password<br>Optional: Access protection via external SmartCard reader<br>Optional: Access protection via internal SmartCard reader |

## Serviceability

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|---|---|
| | FlexySlot<br>EasyFix<br>EasyChange for HDD<br>EasyChange for optical drives |

## Packaging information

| | |
|---|---|
| Packaging dimension | 500x290x540 mm |
| Max. quantity / pallet | 24 |
| Material - Weight (g) Carton | 1270 g |
| Material - Weight (g) EPS / PS | 230 g |
| Material - Weight (g) PE | appr. 60 g |
| Packaging notes | printed user documentation is bleached in chlorine free process |

## Warranty
## Maintenance and Support Services - the perfect extension

| | |
|---|---|
| Recommended Service | 5x9, Response Time: Next Business Day |
| Spare Parts availability | 5 years |
| Service Weblink | http://ts.fujitsu.com/Supportservice |

Information about environmental care, policies, programs and our Environmental Guideline FSC 03230:
http://ts.fujitsu.com/aboutus
Take back and Recycling information:
http://ts.fujitsu.com/recycling

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